

**GOVERNMENT OF INDIA
COMMUNICATIONS
LOK SABHA**

STARRED QUESTION NO:342

ANSWERED ON:10.08.2016

Violation of EMF Norms

Gawali (Patil) Ms. Bhavana; Rai Shri Nityanand

Will the Minister of COMMUNICATIONS be pleased to state:

- (a) the Electro Magnetic Frequency (EMF) norms laid down for mobile towers and handsets along with agencies/authorities in place to ensure compliance of these norms;
- (b) the number of mobile towers and handset manufacturing companies found to be violating EMF norms during the last three years and the current year, company and State-wise;
- (c) the action taken and the penalties imposed on the telecom service providers and companies for the said violations;
- (d) whether the Government has increased the financial penalty for the violation of EMF norms and if so, the details thereof; and
- (e) the directives issued by the Government to the service providers regarding installation of the towers in and around residential areas, educational institutions and hospitals?

Answer

THE MINISTER OF STATE (IC) OF THE MINISTRY OF COMMUNICATIONS &
MINISTER OF STATE IN THE MINISTRY OF RAILWAYS
(SHRI MANOJ SINHA)

(a) to (e) A Statement is laid on the Table of the House.

STATEMENT TO BE LAID ON THE TABLE OF THE LOK SABHA IN RESPECT OF PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO. 342 FOR 10TH AUGUST, 2016 REGARDING "VIOLATION OF EMF NORMS".

(a) Madam, Department of Telecommunications (DoT), in the year 2008, adopted the International Commission on Non Ionizing Radiation Protection (ICNIRP) guidelines that are recommended by World Health Organization (WHO) for basic restriction and limiting reference levels of electromagnetic radiation from mobile towers. Based on the recommendations of an Inter-Ministerial Committee (IMC), with effect from 01.09.2012, these limits have been further made ten times more stringent than the limits prescribed by ICNIRP and recommended by WHO. The present Electro Magnetic Frequency (EMF) radiation limits as laid down for Base Transceiver Stations (BTSs) installed on various mobile towers in India are as follows:

<pre>

Frequency Range E-Field Strength (Volt/Meter) H-Field Strength (Amp/Meter) Power Density (Watt/Sq.Meter)

400 MHz to 2000 MHz $0.434 f^{\frac{1}{2}}$ $0.0011 f^{\frac{1}{2}}$ $f / 2000$

2 GHz to 300 GHz 19.29 $0.05 f$

</pre> (f is frequency in MHz)

The present limit/level of Specific Absorption Rate (SAR) for Mobile Handsets in India is also one of the most stringent in the world and is 1.6 Watt per Kg averaged over a mass of one-gram human tissue.

The work of ensuring compliance to the prescribed stricter precautionary norms of EMF radiation from mobile tower has been entrusted to Telecom Enforcement Resource & Monitoring (TERM) field units of DoT. The compliance testing of Mobile BTSs is done as per standard procedures prescribed by Telecom Engineering Centre (TEC). TEC has also set-up a laboratory at New Delhi for testing of SAR value of mobile handsets imported/manufactured in India.

(b) In the last three years i.e. calendar year 2013, 2014, 2015 and the current year 2016 (upto 31.05.2016), 108 number of BTSs installed on various mobile towers have been found exceeding the prescribed EMF radiation limits by the TERM cells. Licensed Service Area wise (LSA-wise) and Telecom Service Provider(TSP) wise details of these BTSs is attached at Annexure-I & Annexure-II respectively.

(c) TERM Cells have imposed financial penalty amounting to Rs 6.60 crores on defaulting TSPs as per the prescribed DoT guidelines for the non-compliant BTSs detailed in Annexure-I. Further, one BTS in Haryana LSA was shut down by the defaulting TSP and for the remaining non-compliant BTSs, radiation levels have been brought within prescribed radiation limits.

(d) The financial penalty to be imposed on defaulting TSPs for non-compliant BTSs that are found exceeding prescribed EMF radiation limit has been increased from Rs. 5 lacs to Rs. 10 lacs per BTS per incidence with effect from 20.11.2013.

(e) BTSs are established at mobile towers by the TSPs at suitable locations, as per their Radio Frequency (RF) network planning for proper coverage of the area and as per their service requirement to fulfil the license conditions. Prior to installation of mobile towers, the TSPs have to obtain siting clearance from Standing Advisory Committee on Frequency Allocation (SACFA) of DoT for every site from the point of view of interference with other wireless users, aviation hazards and obstruction to any other existing microwave links. However, siting clearances of DoT are issued without prejudice to other applicable by-laws, rules and regulations of local bodies such as municipal corporation, Gram Panchayat etc. TSPs have also to obtain necessary right of way related clearances from concerned local authorities before installation of tower. Various local bodies /State Governments have formulated their own policy regarding grant of such permissions for installation of mobile towers.

With regard to impact of Electromagnetic Field (EMF) emissions from mobile towers on health, World Health Organization (WHO) has referred to approximately 25,000 articles published around the world over past 30 years, and based on an in-depth review of scientific literature, has stated, "Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals." WHO has concluded - "current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields".

DoT, has issued advisory guidelines to state governments on 01.08.2013 for issue of clearance for installation of mobile towers. These guidelines do not place any restriction on installation of mobile towers near the residential areas, educational institutions and hospitals.

This matter has also been agitated in different High Courts from time to time. Several High Courts viz Hon'ble High Courts of Punjab & Haryana, Madras, Kerala, Gujarat, Delhi, Himachal Pradesh, Allahabad in the court cases related to issue of effects of the radiation from cell phone towers have given judgments whereby they have dismissed petitions, where the mobile tower installations at various locations, including residential, were challenged on grounds of health effects of EMF radiations.

Annexure-I

Licensed Service Area (LSA) wise details of number of non-compliant BTSs found exceeding prescribed radiation limits during last three calendar years i.e. 2013 to 2015 and current year 2016 (up to 31.05.2016)

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SN	LSA	Year 2013	Year 2014	Year 2015
Year 2016 (upto 31.05.16)				
Number of BTSs as on 31.12.13				
Number of BTSs found exceeding prescribed EMF radiation limits				
Number of BTSs as on 31.12.14				
Number of BTSs found exceeding prescribed EMF radiation limits				
Number of BTSs as on 31.12.15				
Number of BTSs found exceeding prescribed EMF radiation limits				
Number of BTSs as on 31.05.16				
Number of BTSs found exceeding prescribed EMF radiation limits				
1	Andhra Pradesh	63697	0	68674
2	Assam	14689	0	16054
3	Bihar	44105	0	46378
4	Delhi	34062	0	38386
5	Gujarat	47761	0	51959
6	Haryana	18608	0	20075
7	Himachal Pradesh	7381	0	7841
8	Jammu and Kashmir	11626	0	12294
9	Karnataka	57306	2	63244
10	Kerala	34327	0	36667
11	Kolkata	19983	0	21671
12	Maharashtra (excluding Mumbai)	66475	4	70546
13	Madhya Pradesh	47409	0	49039
14	Mumbai	26905	55	27915
15	North East	9010	0	10284
16	Odisha	21376	0	22017
17	Punjab	27971	0	31625
18	Rajasthan	36225	1	39647
19	Tamilnadu (including Chennai)	67379	0	74076
20	Uttar Pradesh (East)	51112	10	52726
21	Uttar Pradesh (West)	39207	0	42380
22	West Bengal (excluding Kolkata)	28517	0	31060
Grand Total		775131	72	834558
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Annexure-II

Telecom Service Provider (TSP) wise details of number of non-compliant BTSs found exceeding prescribed radiation limits during last three calendar years i.e. 2013 to 2015 and current year 2016 (up to 31.05.2016)

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SN TSP Number of BTSs as on 31.12.13 Number of BTSs found exceeding prescribed EMF radiation limits during Year 2013
Number of BTSs as on 31.12.14 Number of BTSs found exceeding prescribed EMF radiation limits during Year 2014 Number of
BTSs as on 31.12.15 Number of BTSs found exceeding prescribed EMF radiation limits during Year 2015 Number of BTSs as on
31.05.16 Number of BTSs found exceeding prescribed EMF radiation limits during Year 2016 (up to 31.05.16)
1 AIRCEL/DISHNET 50766 4 54766 1 66310 2 68923 0
2 Airtel/BHL 166847 12 185906 6 244547 5 279079 0
3 BSNL 107544 2 113697 6 120190 0 123167 0
4 Etisalat/Allianz 1428 0 1366 0 1366 0 1366 0
5 IDEA/ABTL 114277 5 134854 3 171330 0 193609 0
6 Loop 2047 4 129 0 4 0 4 0
7 MTNL 3660 2 3603 0 3227 0 3186 0
8 QTL/HFCL 2032 0 2173 0 2389 0 2410 0
9 Reliance 92248 16 77138 3 67730 0 64310 0
10 Reliance Jio 0 0 4083 0 112420 0 152509 0
11 SPICE TELECOM 6561 0 2267 0 0 0 0 0
12 SSTL (MTS) 8145 1 8119 0 8211 0 8201 0
13 STEL 33 0 0 0 0 0 0 0
14 Tikona 0 0 0 0 419 0 423 0
15 TTSL/TTML 64029 11 66626 3 68598 2 69503 0
16 Videocon 4826 5040 5069 0 1769 0
17 Vodafone 130562 12 150075 2 175417 3 196321 0
18 Uninor 19854 3 24716 0 24174 0 25726 0
19 AUGERE 0 0 0 0 0 0 361 0
20 Wireless Business Services Private Limited 272 0 0 0 0 0 0 0
Grand Total 775131 72 834558 24 1071401 12 1190867 0
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